APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/619,553	07/19/2000	Henry Ptasinski	39630/RJP/E264	2058

23363 7590 07/14/2004		EXAMINER	
CHRISTIE, PARKER & HALE, LLP		BRANCOLINI, JOHN R	
PO BOX 7068			
PASADENA, CA 91109-7068		ART UNIT	PAPER NUMBER
		2153	9

DATE MAILED: 07/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.		Applicant(s)
Office Action Summary	09/619,553		PTASINSKI ET AL.
	Examiner		Art Unit
	John R Brancolini		2153

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>26 April 2004</u>.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-22 and 43-64</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-22 and 43-64</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>26 April 2004</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

       1.☐ Certified copies of the priority documents have been received.

       2.☐ Certified copies of the priority documents have been received in Application No. _____.

       3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Response to Amendment

This action in response to Amendment filed April 26, 2004. Claims 23-42 were cancelled, and claims 43-64 were added. Claims 1-22, 43-64 now pending in the application.

Drawings

Objections to the drawings withdrawn due to the amended specification.

Specification

Objections to both the Abstract and the spacing of the specification withdrawn due to the amended specification.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-22, 43-64 are rejected under 35 U.S.C. 102(e) as being anticipated by
Compliment et al. (US Patent 6360260), hereinafter referred to as Compliment.

In regards to claim 1, Compliment discloses a method of verifying connectivity
between network nodes, comprising, for each network node:

- Providing periodic time intervals (Timing means provided for creating and
  counting time intervals, col 8 lines 4-11).

- Counting elapsed periodic time intervals since transmission of a link integrity
  indication frame, the link integrity indication frame being a frame which, when
  transmitted by a network node, can be received by all other nodes on the
  communications network and which contains a source identifier that uniquely
  identifies a transmitting node (Fig 8 is a representation of the frame sent, see
  also col 6 lines 9-23).

- Receiving frames from one or more sending nodes and maintaining during each
  periodic time interval a node state status and current received frame source
  identifiers (Frames are received and the management table records node status
  and an identifier, col 7 lines 1-26).

- Determining the node state status upon the expiration of a predetermined
  elapsed time interval (upon expiration the node state is checked on the
  connection state field, col 7 lines 11-21).

- Transmitting a link integrity indication frame based upon determining:

o The node state status as not being indicative of having received frames

from each of a plurality of sending nodes during the predetermined

elapsed time interval (a connection state field maintains a status of being

indicative of traffic, col 7 lines 11-21, also col 9 line 49 – col 10 line 51,

Compliment discusses multiple listings in the Management table, which

can be seen in figure 7, having spots for multiple stations, each of which is

cleared before a message is sent to a set of receiving management

stations, which can all reply within the timer period, more discussion on

this feature in the Response to Arguments section below).

In regards to claim 2, Compliment discloses the source identifier is a source

address and the current received frame source identifier is a current received frame

source address (col 6 lines 12-14 show both a source and destination address).

In regards to claim 3, Compliment discloses counting the elapsed periodic time

intervals includes:

- Incrementing a counter every time a periodic time interval elapses and the

    network node has not sent a link integrity indication frame during the elapsed

    time interval (Fig 6 shows incrementing the counter, step 370).

- Resetting the counter whenever the network node transmits a link integrity

    indication frame (Fig 6 shows initializing or resetting the timer to 0).

In regards to claim 4, Compliment discloses maintaining a node state status
includes:

- Establishing a node initial state status upon receipt of a frame from another node
  on the network (establishing a initial state is shown, col 6 lines 49-62).

- Upon receiving a subsequent frame within the predetermined elapsed time
  interval, comparing the maintained current received frame source address with a
  subsequent frame source address (Fig 5 shows the comparison method, also
  see col 6 lines 49-62).

- If the comparing indicates a same source address, the node state status remains
  unchanged (Fig 5, also see col 6 lines 49-62).

- If the comparing indicates a different source address, the node state status
  changes to being indicative of having received frames from each of a plurality of
  sending nodes during the predetermined elapsed time interval and transmitting a
  link integrity indication frame is suppressed (a state table is updated, col 7 lines
  11-21).

In regards to claim 5, Compliment discloses determining the node state status as
not being indicative of having received frames from each of a plurality of sending nodes
during the predetermined elapsed time interval includes providing a logic state machine
having a plurality of states including a down state indicative of a non-functional network
link and a plurality of up states indicative of functional network links, the states being
transitional therebetween based upon predetermined network node status, expiration of

periodic timing intervals and receipt of frames by the network node (a logic state table is

provided to maintain status of nodes, col 7 lines 11-21).

In regards to claim 6, Compliment discloses maintaining a current received frame

source address includes recording the current received frame source address in a

memory table (col 7 lines 53-60).

In regards to claim 7, Compliment discloses the sending node is a node on a

broadcast network (Fig 1 shows both a multicast and a point to point network).

In regards to claim 8, Compliment discloses the sending node is a node on a

point-to-point network (Fig 1 shows both a multicast and a point to point network).

In regards to claim 9, Compliment discloses the communication network is a

multi-layer protocol communication network (the shown network is a SNMP which can

utilize multi-layers, such as a hierarchal format, Fig 1, see also col 2 lines 53-60).

In regards to claim 10, Compliment discloses the transmitting a link integrity

indication frame is performed at a data link layer of the multi-layer protocol

communication network (the transmission is performed by a management station at a

data link layer, col 6 lines 24-36).

In regards to claim 11, Compliment discloses the network nodes whose

connectivity is being verified are connected by transmission medium from the group of

telephone wire, shielded twisted pair, unshielded twisted pair, cable, power line, optical

fiber, or wireless medium (Fig 1 shows a wired network in which the invention is

implemented, see also col 4 line 59 – col 5 line 23).

In regards to claim 12, Compliment discloses a link integrity apparatus for

verifying connectivity between network nodes communicating over a transmission

medium, comprising, for each network node:

- A periodic time interval generator (Timer provided for creating time intervals, col

  8 lines 4-11).

- A counter system for counting elapsed periodic time intervals since transmission

  of a link integrity indication frame, the link integrity indication frame being a frame

  which, when transmitted by a network node, can be received by all other nodes

  on the communications network and which contains a source identifier that

  uniquely identifies a transmitting node (Fig 8 is a representation of the frame

  sent, see also col 6 lines 9-23).

- A receiver coupled to the transmission medium for receiving frames from one or

  more sending nodes (Frames are received and the management table records

  node status and an identifier, col 7 lines 1-26).

- A storage system for maintaining during each periodic time interval a node state status and current received frame source identifiers (the management table records node status and an identifier, col 7 lines 1-26).

- Logic circuitry coupled to the counter system, the storage system and the receiver, the logic circuitry determining the node state status upon the expiration of a predetermined elapsed time interval a count of the periodic elapsed time intervals since transmission of a link integrity indication frame (upon expiration the node state is checked on the connection state field, col 7 lines 11-21).

- A transmitter coupled to the logic circuitry and the transmission medium for transmitting a link integrity indication frame over the transmission medium based upon determining by the logic circuitry that the node state status as not being indicative of having received frames from each of a plurality of sending nodes during the predetermined elapsed time interval (a connection state field maintains a status of being indicative of traffic, col 7 lines 11-21, also col 9 line 49 – col 10 line 51, Compliment discusses multiple listings in the Management table, which can be seen in figure 7, having spots for multiple stations, each of which is cleared before a message is sent to a set of receiving management stations, which can all reply within the timer period, and if nor reply is received then transmitting a new frame, more discussion on this feature in the Response to Arguments section below).

In regards to claim 13, Compliment discloses the source identifier is a source address and the current received frame source identifier is a source address (col 6 lines 12-14 show both a source and destination address).

In regards to claim 14, Compliment discloses the counter is incremented by the logic circuitry every time an elapsed time interval expires and the network node has not sent a link integrity indication frame during the elapsed time interval, and the counter is reset whenever the network node transmits a link integrity indication frame (Fig 6 shows incrementing the counter, step 370, as well as resetting the timer to zero).

In regards to claim 15, Compliment discloses the logic circuitry maintains node state status by:

- Establishing a node initial state status upon receipt of a frame from another node on the network (establishing a initial state is shown, col 6 lines 49-62).
- Upon receiving a subsequent frame within the predetermined elapsed time interval, comparing the maintained current received frame source address with a subsequent frame source address (Fig 5 shows the comparison method, also see col 6 lines 49-62).
- If the comparing indicates a same source address, the node state status remains unchanged (Fig 5, also see col 6 lines 49-62).
- If the comparing indicates a different source address, the node state status changes to being indicative of having received frames from each of a plurality of

sending nodes during the predetermined elapsed time interval and transmitting a

link integrity indication frame is suppressed (a state table is updated, col 7 lines

11-21, and the frame is not sent).

In regards to claim 16, Compliment discloses the logic circuitry functions as a

logic state machine having a plurality of states including a down state indicative of a

non-functional network link and a plurality of up states indicative of functional network

links, the states being transitional therebetween based upon predetermined network

node status, expiration of periodic timing intervals and receipt of frames by the network

node (a logic state table is provided to maintain status of nodes, col 7 lines 11-21).

In regards to claim 17, Compliment discloses the memory storage system

includes memory table for maintaining a current received frame source address (col 7

lines 53-60).

In regards to claim 18, Compliment discloses the sending node is a node on a

broadcast network (Fig 1 shows both a multicast and a point to point network).

In regards to claim 19, Compliment discloses the sending node is a node on a

point-to-point network (Fig 1 shows both a multicast and a point to point network).

In regards to claim 20, Compliment discloses the communication network is a multi-layer protocol communication network (the shown network is a SNMP which can utilize multi-layers, such as a hierarchal format, Fig 1, see also col 2 lines 53-60).

In regards to claim 21, Compliment discloses the transmitting a link integrity indication frame is performed at a data link layer of the multi-layer protocol communication network (the transmission is performed by a management station at a data link layer, col 6 lines 24-36).

In regards to claim 22, Compliment discloses the network nodes whose connectivity is being verified are connected by transmission medium from the group of telephone wire, shielded twisted pair, unshielded twisted pair, cable, power line, optical fiber, or wireless medium (Fig 1 shows a wired network in which the invention is implemented, see also col 4 line 59 – col 5 line 23).

In regards to claim 43 Compliment discloses a method of verifying connectivity between network nodes, comprising, for each network node:

- Providing periodic time intervals (Timing means provided for creating and counting time intervals, col 8 lines 4-11).
- Counting elapsed periodic time intervals since transmission of a link integrity indication frame, the link integrity indication frame being a frame which, when transmitted by a network node, can be received by all other nodes on the

communications network and which contains a source identifier that uniquely

identifies a transmitting node (Fig 8 is a representation of the frame sent, see

also col 6 lines 9-23).

- Receiving frames from one or more sending nodes and maintaining during each

    periodic time interval a node state status and current received frame source

    identifiers (Frames are received and the management table records node status

    and an identifier, col 7 lines 1-26).

- Upon the expiration of a predetermined elapsed time interval determining the

    node state status and a count of the elapsed periodic time intervals since

    transmission of a link integrity indication frame (upon expiration the node state is

    checked on the connection state field, col 7 lines 11-21, Figure 7 also showing

    the entire table containing time interval counts as well).

- Transmitting a link integrity indication frame based upon determining:

    o The node state status as being indicative of having received frames from

        each of a plurality of sending nodes during the predetermined elapsed

        time interval (a connection state field maintains a status of being indicative

        of traffic, col 7 lines 11-21, also col 9 line 49 – col 10 line 51, Compliment

        discusses multiple listings in the Management table, which can be seen in

        figure 7, having spots for multiple stations, each of which is cleared before

        a message is sent to a set of receiving management stations, which can

        all reply within the timer period, more discussion on this feature in the

        Response to Arguments section below).

    o The count of predetermined elapsed time intervals as being greater than a

       predefined count limit (Once the timing means reach a predetermined

       limit, a registration process begins).

In regards to claim 44, Compliment discloses the source identifier is a source

address and the current received frame source identifier is a current received frame

source address (col 6 lines 12-14 show both a source and destination address).

In regards to claim 45, Compliment discloses counting the elapsed periodic time

intervals includes:

- Incrementing a counter every time a periodic time interval elapses and the

  network node has not sent a link integrity indication frame during the elapsed

  time interval (Fig 6 shows incrementing the counter, step 370).

- Resetting the counter whenever the network node transmits a link integrity

  indication frame (Fig 6 shows initializing or resetting the timer to 0).

In regards to claim 46, Compliment discloses maintaining a node state status

includes:

- Establishing a node initial state status upon receipt of a frame from another node

  on the network (establishing a initial state is shown, col 6 lines 49-62).

- Upon receiving a subsequent frame within the predetermined elapsed time

  interval, comparing the maintained current received frame source address with a

subsequent frame source address (Fig 5 shows the comparison method, also

see col 6 lines 49-62).

- If the comparing indicates a same source address, the node state status remains

  unchanged (Fig 5, also see col 6 lines 49-62).

- If the comparing indicates a different source address, the node state status

  changes to being indicative of having received frames from each of a plurality of

  sending nodes during the predetermined elapsed time interval and transmitting a

  link integrity indication frame is suppressed (a state table is updated, col 7 lines

  11-21).

In regards to claim 47, Compliment discloses determining the node state status

as not being indicative of-having received frames from each of a plurality of sending

nodes during the predetermined elapsed time interval includes providing a logic state

machine having a plurality of states including a down state indicative of a non-functional

network link and a plurality of up states indicative of functional network links, the states

being transitional therebetween based upon predetermined network node status,

expiration of periodic timing intervals and receipt of frames by the network node (a logic

state table is provided to maintain status of nodes, col 7 lines 11-21).

In regards to claim 48, Compliment discloses maintaining a current received

frame source address includes recording the current received frame source address in

a memory table (col 7 lines 53-60).

In regards to claim 49, Compliment discloses the sending node is a node on a broadcast network (Fig 1 shows both a multicast and a point to point network).

In regards to claim 50, Compliment discloses the sending node is a node on a point-to-point network (Fig 1 shows both a multicast and a point to point network).

In regards to claim 51, Compliment discloses the communication network is a multi-layer protocol communication network (the shown network is a SNMP which can utilize multi-layers, such as a hierarchal format, Fig 1, see also col 2 lines 53-60).

In regards to claim 52, Compliment discloses the transmitting of a link integrity indication frame is performed at a data link layer of the multi-layer protocol communication network (the transmission is performed by a management station at a data link layer, col 6 lines 24-36).

In regards to claim 53, Compliment discloses the network nodes whose connectivity is being verified are connected by transmission medium from the group of telephone wire, shielded twisted pair, unshielded twisted pair, cable, power line, optical fiber, or wireless medium (Fig 1 shows a wired network in which the invention is implemented, see also col 4 line 59 – col 5 line 23).

In regards to claim 54, Compliment discloses a link integrity apparatus for verifying

connectivity between network nodes communicating over a transmission medium,

comprising, for each network node:

- A periodic time interval generator (Timer provided for creating time intervals, col

  8 lines 4-11).

- A counter system for counting elapsed periodic time intervals since transmission

  of a link integrity indication frame, the link integrity indication frame being a frame

  which, when transmitted by a network node, can be received by all other nodes

  on the communications network and which contains a source identifier that

  uniquely identifies a transmitting node (Fig 8 is a representation of the frame

  sent, see also col 6 lines 9-23).

- A receiver coupled to the transmission medium for receiving frames from one or

  more sending nodes (Frames are received and the management table records

  node status and an identifier, col 7 lines 1-26).

- A storage system for maintaining during each periodic time interval a node state

  status and current received frame source identifiers (the management table

  records node status and an identifier, col 7 lines 1-26).

- Logic circuitry coupled to the counter system, the storage system and the

  receiver, the logic circuitry upon the expiration of a predetermined elapsed time

  interval determining the node state status and a count of the periodic elapsed

  time intervals since transmission of a link integrity indication frame (upon

expiration the node state is checked on the connection state field, col 7 lines 11-
21).

- A transmitter coupled to the logic circuitry and the transmission medium for
  transmitting a link integrity indication frame over the transmission medium based
  upon determining by the logic circuitry that the node state status as being
  indicative of having received frames from each of a plurality of sending nodes
  during the predetermined elapsed time interval, and the count of predetermined
  elapsed time intervals as being greater than a predefined count limit (a
  connection state field maintains a status of being indicative of traffic, col 7 lines
  11-21, also col 9 line 49 – col 10 line 51, Compliment discusses multiple listings
  in the Management table, which can be seen in figure 7, having spots for multiple
  stations, each of which is cleared before a message is sent to a set of receiving
  management stations, which can all reply within the timer period, and if nor reply
  is received then transmitting a new frame, more discussion on this feature in the
  Response to Arguments section below).

In regards to claim 55, Compliment discloses the source identifier is a source
address and the current received frame source identifier is a source address (col 6 lines
12-14 show both a source and destination address).

In regards to claim 56, Compliment discloses the counter is incremented by the
logic circuitry every time an elapsed time interval expires and the network node has not

sent a link integrity indication frame during the elapsed time interval, and the counter is

reset whenever the network node transmits a link integrity indication frame (Fig 6 shows

incrementing the counter, step 370, as well as resetting the timer to zero).

In regards to claim 57, Compliment discloses the logic circuitry maintains node

state status by:

- Establishing a node initial state status upon receipt of a frame from another node

  on the network (establishing a initial state is shown, col 6 lines 49-62).

- Upon receiving a subsequent frame within the predetermined elapsed time

  interval, comparing the maintained current received frame source address with a

  subsequent frame source address (Fig 5 shows the comparison method, also

  see col 6 lines 49-62).

- If the comparing indicates a same source address, the node state status remains

  unchanged (Fig 5, also see col 6 lines 49-62).

- If the comparing indicates a different source address, the node state status

  changes to being indicative of having received frames from each of a plurality of

  sending nodes during the predetermined elapsed time interval and transmitting a

  link integrity indication frame is suppressed (a state table is updated, col 7 lines

  11-21, and the frame is not sent).

In regards to claim 58, Compliment discloses the logic circuitry functions as a

logic state machine having a plurality of states including a down state indicative of a

non-functional network link and a plurality of up states indicative of functional network

links, the states being transitional therebetween based upon predetermined network

node status, expiration of periodic timing intervals and receipt of frames by the network

node (a logic state table is provided to maintain status of nodes, col 7 lines 11-21).

In regards to claim 59, Compliment discloses the memory storage system

includes memory table for maintaining a current received frame source address (col 7

lines 53-60).

In regards to claim 60, Compliment discloses the sending node is a node on a

broadcast network (Fig 1 shows both a multicast and a point to point network).

In regards to claim 61, Compliment discloses the sending node is a node on a

point-to-point network (Fig 1 shows both a multicast and a point to point network).

In regards to claim 62, Compliment discloses the communication network is a

multi-layer protocol communication network (the shown network is a SNMP which can

utilize multi-layers, such as a hierarchal format, Fig 1, see also col 2 lines 53-60).

In regards to claim 63, Compliment discloses the transmitting a link integrity

indication frame is performed at a data link layer of the multi-layer protocol

communication network (the transmission is performed by a management station at a

data link layer, col 6 lines 24-36).

In regards to claim 64, Compliment discloses the network nodes whose

connectivity is being verified are connected by transmission medium from the group of

telephone wire, shielded twisted pair, unshielded twisted pair, cable, power line, optical

fiber, or wireless medium (Fig 1 shows a wired network in which the invention is

implemented, see also col 4 line 59 – col 5 line 23).

Response to Arguments

Applicant's argument as set forth in the amendment, page 19:

"While the managed devices of Compliment may be in contact with more than

one management station at a time, the registration process is triggered by the sending

of frames, or lack thereof, between a single managed device and a single management

station."

In response to this argument, the examiner respectfully disagrees. The applicant

points towards a certain passage in Compliment (Col 3 lines 8-11) where only one

management station is involved in the registration process. However, Compliment later

(page 9 line 49 – page 10 line 51) shows an example where a managed device sends

out multiple initialization frames to each management station contained in the

management table. Col 10 lines 1-15 discusses how the managed device steps

through each entry of the management table, clearing the information in the table, and

attempting to contact each management station again. The discovery process is then carried out as normal, as each response is received the management table is updated accordingly. So, Compliment is seen as receiving frames from a plurality of sending nodes as is stated in the currently amended independent claims.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John R Brancolini whose telephone number is (703) 305-7107. The examiner can normally be reached on M-Th 7am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached on (703) 305-4792. The fax phone

number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JRB

GLENTON B. BURGESS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100